BEFORE THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

In re:	
)	
Promulgation of Air Quality	EPA Docket No.
Implementation Plans; State	
of Arkansas; Regional Haze and	EPA-R06-OAR-2015-0189
Interstate Visibility Transport	
Federal Implementation Plan	

Petition for Reconsideration and Request for Administrative Stay of the Regional Haze and Interstate Visibility Transport Federal Implementation Plan for the State of Arkansas

The Energy and Environmental Alliance of Arkansas ("EEAA") respectfully requests that the Administrator of the U.S. Environmental Protection Agency ("EPA") grant the following Petition for Reconsideration and Request for Administrative Stay of the Final Rule, "Promulgation of Air Quality Implementation Plans; State of Arkansas; Regional Haze and Interstate Visibility Transport Federal Implementation Plan" ("Final Rule"). As discussed herein, reconsideration of the Final Rule is appropriate and necessary because EEAA and its members have raised objections that are of central relevance to the outcome of the rulemaking and which are premised upon information and circumstances that developed after the close of the comment period, thereby not affording EEAA and its members a previous opportunity to provide comments concerning the same. Administrative stay of the Final Rule during reconsideration of these objections is appropriate to avoid further accrual of significant harms to EEAA's member organizations and other municipal and cooperative co-owners, and will have no negative impact to the visibility benefits determined in the Final Rule

I. Introduction

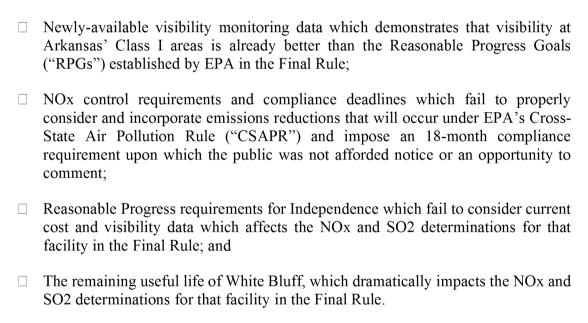
EEAA is an ad-hoc association of Arkansas' investor-owned, co-operative, municipal, and independent electric utilities and other energy companies formed to advocate, communicate and encourage energy and environmental policies that promote sound and predictable regulation of Arkansas' utility industry, and support an economically viable and environmentally secure future for all Arkansans, including access to reliable and affordable energy resources.² Members of EEAA own part or all of the stationary sources affected by the Final Rule and which are the subject of this Petition. In particular, EEAA members own or operate the Flint Creek Electric Power Plant ("Flint Creek"), the White Bluff Steam Electric Station ("White Bluff"), and the Independence Steam Electric Station ("Independence"). EEAA members SWEPCO and AECC each own fifty percent of the Flint Creek plant, a 528 megawatt ("MW") coal-fired electric generating unit located

¹ 81 Fed Reg. 66332 (Sept. 27, 2016).

² The members of EEAA which join this Petition are: Southwestern Electric Power Company ("SWEPCO"), Arkansas Electric Cooperative Corporation ("AECC"), Conway Corporation, Entergy Arkansas, Inc. ("Entergy"), Jonesboro City Water & Light ("Jonesboro CWL"), and West Memphis Utility Commission.

near Gentry, Arkansas, which employs 90 employees with an annual payroll of approximately \$3.9 million and provides baseload electrical power generation to Washington and Benton Counties. In addition to ownership by Entergy-affiliated companies, EEAA members AECC, Jonesboro CWL, Conway Corporation and West Memphis own collectively forty-three percent of the White Bluff plant, a two-unit 1,659 MW coal-fired electric generating facility located in Jefferson County, Arkansas. AECC, Jonesboro CWL, Conway Corporation, West Memphis and Osceola Power and Light own a collective forty-nine percent³ of the Independence plant, a two-unit 1,678 MW coal-fired generating facility located near Newark, Arkansas.

The Final Rule requires all five of the Flint Creek, White Bluff and Independence units to meet certain emissions limits for nitrogen oxides ("NOx") and sulfur dioxide ("SO2") in 2018 and 2021, respectively, through the installation of new and costly emissions controls. The objections raised in this Petition concern (i) information which became available after the close of the comment period and which EPA failed to consider that is of central relevance to the Final Rule's requirements for these facilities; and (ii) actions which EPA took in the Final Rule with respect to the requirements for these facilities without providing an opportunity for public comment on those actions. Specifically, EEAA requests that EPA conduct a proceeding to allow EEAA and its members to provide comment on the following specific topics which are of central importance to the Final Rule:



Given the central importance of these considerations to the determinations in the Final Rule and the clear errors resulting from the failure to properly consider this information, the reconsideration requested by this Petition is appropriate and necessary. Furthermore, given that failure to properly consider these issues has resulted in clear errors that are causing EEAA's members to suffer ongoing injustice and irreparable harms which increase daily, granting an administrative stay of the Final Rule is appropriate to avoid further harms that will accumulate

³ In addition to shared ownership by Entergy-affiliated companies, East Texas Electric Cooperative, which is not a member of EEAA, owns four percent of the Independence plant.

while EPA properly considers this additional information.

EEAA is aware that similar requests for reconsideration and stay of the Final Rule have been submitted by AECC and Entergy, which requests EEAA affirmatively adopts as if set out word-for-word herein. However, EEAA's other member organizations which are owner/operators of the affected facilities or municipal utility providers which share ownership of the affected units are uniquely adversely impacted by the Final Rule and advance separate and additional objections, as discussed herein.

II. Request for Reconsideration

A. The Clean Air Act Standard

The Clean Air Act mandates that, if an objection is of central relevance to the outcome of the rule, EPA must convene a proceeding for reconsideration of a rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed if it can be demonstrated that it was impracticable to raise the objection within the period for public comment or if the grounds for the objection arose after the period for public comment.⁴ As discussed herein, the new information concerning monitored visibility, control costs and remaining useful life of one or more of the units, and the 18-month compliance deadline each involve actions which EPA took in the Final Rule or developments since promulgation of the Final Rule which arose during the period for judicial review and could not have been raised during the comment period. Federal courts have repeatedly held that EPA has a mandatory duty to consider objections such as those set forth herein, and that "the public's right to petition the Administrator for revision of a standard of performance and the Administrator's duty to respond substantively to such requests exist completely independently of Section 307 and [the courts'] appellate jurisdiction." Each of these objections individually and collectively provide strong support for the argument that EPA's determinations in the Final Rule should be reversed, and therefore are of central relevance to the outcome of the Final Rule.⁶ As such, EPA must grant this Petition and reconsider the effect of these objections on the outcome of the Final Rule.

B. EPA Failed to Consider Current Visibility Data

Since the close of the public comment period on August 7, 2015, the complete set of 2015 measured concentration data has become available from the Interagency Monitoring of Protected Visual Environments ("IMPROVE") network of Class I area monitors. This newly-available IMPROVE data demonstrates that visibility continues to improve at Arkansas' Class I areas by a greater amount than the Uniform Rate of Progress ("URP"), and that the visibility is already better than the RPGs EPA has established for those areas in the Final Rule. Specifically, the new data

⁴ 42 U.S.C. § 7607(d)(7)(B).

⁵ Oljato Chapter of the Navajo Tribe v. Train, 515 F.2d 654, 667 (emphasis added); see also, e.g., PPG Indus., Inc. v. Costle, 659 F.2d 1239, 1250 (D.C. Cir. 1981) (counseling that amendment or repeal of a Clean Air Act regulation could be sought under APA Section 553(e) in conjunction with Section 307(d)(7)(B) even well outside the 60-day review window); Lead Indus. Ass'n, Inc. v. EPA, 647 F.2d 1130, 1143, 1145 (D.C. Cir.) (petition for reconsideration filed outside 60-day review window resolved on merits by EPA and not deemed untimely by D.C. Circuit), cert. denied, 449 U.S. 1042 (1980); see also, e.g., 63 Fed. Reg. 24,749 (May 5, 1998) (granting three-month EPA stay of emissions standard promulgated nearly four years earlier).

⁶ See Coalition for Responsible Regulation v. EPA, 684 F.3d 102, 125 (D.C. Cir. 2012).

demonstrates that the actual visibility impairment at the Caney Creek and Upper Buffalo Wilderness Areas has continued to decrease through 2015. The average 20 percent worst haze indices for Caney Creek decreased from 21.49 deciviews ("dv") in 2012 to 20.41 dv in 2015. Similarly, visibility improved at Upper Buffalo, where the average 20 percent worst haze indices decreased from 21.56 dv in 2012 to 19.96 dv in 2015. These values are significantly less than, and ahead of schedule of, the RPGs determined by EPA in the Final Rule of 22.47 dv for Caney Creek and 22.51 dv for Upper Buffalo.

The level of visibility impairment at Arkansas' Class I areas informed and provided a basis for EPA's determinations and requirements throughout the Final Rule. In particular, EPA's decision to impose Reasonable Progress requirements in the Final Rule is based on EPA's justification that such controls are necessary to ensure reasonable progress towards the natural visibility goal. The Clean Air Act dictates that the implementation plan for regional haze should "contain such emission limits, schedules of compliance and other measures as may be *necessary* to make reasonable progress." However, given that the new IMPROVE data shows that visibility at Arkansas' Class I areas has already surpassed the URP goals and EPA's RPGs for the first planning period, no Reasonable Progress requirements should be necessary to make progress towards the goal. As such, EPA should reconsider its justification for Reasonable Progress requirements as well as other determinations in the Final Rule based on those grounds.

C. EPA's NOx BART Requirements and Compliance Deadlines are Erroneous

 EPA Failed to Properly Consider Emission Reductions from the Transport Rule Requirements

EPA's determinations in the Final Rule for NOx requirements for the Flint Creek, White Bluff and Independence facilities fails to consider the emission reductions which have been, and will continue to be, achieved under CSAPR, the stringency of which has increased since the close of the comment period on the Final Rule. EPA has already finalized a determination that CSAPR achieves "greater reasonable progress towards the national goal of achieving natural visibility conditions in Class I areas than source- specific...BART in those states covered by [CSAPR]." Since the close of the comment period on the Final Rule, EPA finalized a rulemaking which updated CSAPR, which imposes an even more stringent NOx trading budget than the original CSAPR trading program that EPA already considered to be "better than BART." Proper consideration of this information is of central importance to EPA's determinations in the Final Rule to impose additional, costly NOx control requirements on facilities owned and operated by EEAA members.

The Clean Air Act commands that EPA explain the basis for its decisions, including underlying factual bases, methods of analysis, and legal and policy considerations. ¹¹ In its

⁷ See, e.g., 80 Fed. Reg. 18944, 18966 (visibility improvement from baseline as a basis for Flint Creek control requirements); 18972-74 (visibility improvement from baseline as a basis for White Bluff control requirements); and, 18993-94 (visibility improvement from baseline as a basis for Independence control requirements (Apr. 8, 2015).

⁸ 42 U.S.C. § 7491 (emphasis added).

⁹ 77 Fed. Reg. 33642, 33648 (June 7, 2012).

¹⁰ See 81 Fed. Reg. 74,504 (October 26, 2016)

^{11 42} U.S.C. § 7607(d).

response to comments, EPA states that it declined to consider the emissions achieved through CSAPR in its NOx determinations for Arkansas' facilities because the option to select CSAPR is discretionary, and because the State of Arkansas did not take a programmatic approach to regional haze NOx requirements in its 2008 proposed State Implementation Plan.¹² This justification does not satisfy the aforementioned Clean Air Act mandate that EPA explain the underlying factual bases, methods of analysis, and legal and policy considerations. Furthermore, in a letter to the Arkansas Department of Environmental Quality dated after the close of the comment period on the Final Rule but during the period for judicial review, EPA states that its own analysis "indicates that CSAPR participation will remain an appropriate BART alternative for all states participating in CSAPR."¹³ Without question, EPA's own statement that relying on CSAPR as an appropriate BART alternative for the State of Arkansas is of central relevance to its determination in the Final Rule to do just the opposite. Given EPA's own statements and the other significant recent developments surrounding implementation of the transport rule and the reduction in NOx emissions pursuant thereto, EPA must reconsider its determinations to impose costly NOx controls in the Final Rule in lieu of relying on CSAPR to satisfy those requirements.

2. EPA Did Not Afford Notice or Opportunity to Comment on the Final Rule's 18-month Compliance Deadline for Installation of NOx Controls

In its Proposed Rule for the Arkansas Regional Haze FIP, EPA proposed requiring compliance with NOx emissions through the operation of controls at the affected sources within three years or as expeditiously as practicable, which, according to EPA's explanation at the time, is "consistent with [EPA's] regional haze regulations. ¹⁴ EPA did not invite or receive comment on imposition of an 18-month compliance deadline for those requirements. In the preamble to the Final Rule, EPA states that the decision to require compliance within 18 months is based on one comment received from a non-governmental organization asserting that installation of these types of controls could be accomplished in a time period less than three years.¹⁵ However, the comment in question did not state that 18 months would be an appropriate compliance timeframe for these specific projects, and was a generic statement based on a 10-year-old vendor association report that did not consider permitting considerations, a company's internal project development and approval process, site-specific factors, or reliability concerns. 16 The vendor association report explicitly recognized that "[v]ariations in the schedule may occur due to site specific conditions that may increase or decrease the typical deployment time."17 The vendor report also does not appear to allow sufficient time for testing and optimization of equipment, providing only one week for commissioning and startup. 18

¹² Response to Comments for the Federal Register Notice for the State of Arkansas; Regional Haze and Interstate Visibility Transport Federal Implementation Plan, Docket No. EPA-R06-OAR-2015-0189 at 253 (Aug. 31, 2016).

¹⁶ Sierra Club Comments at 25; Technical Support Document to Comments of Conservation Organizations, Prepared by Victoria R, Stamper at 46 (Aug. 5, 2015).

¹³ See letter from to Stuart Spencer, Associate Director, Office of Air Quality, Arkansas Dept. of Environmental Quality dated Oct. 13, 2016; attached hereto as Appendix A.

¹⁴ See 80 Fed. Reg. 18944, 18975 (Apr. 8, 2015).

¹⁵ Final Rule at 66342.

¹⁷ Typical Installation Timelines for NOx Emission Control Technologies on Industrial Sources, Institute of Clean Air Companies at 4 (Dec. 4, 2006), available at https://c.ymcdn.com/sites/icac.site-ym.com/resource/resmgr/ICAC_NOx_Control_Installatio.pdf.

¹⁸ Id

Had EEAA and its members been afforded adequate notice and opportunity to comment on this aspect of the Final Rule, it would have provided comment and supporting explanation that 18 months is completely inadequate for installation and operation of projects of this type and size, particularly when required to be performed across multiple units which represent a significant amount of baseload generating capacity within the State. Projects of these types require the facility operator to prepare and submit an air permit application, obtain the permit through the public notice and participation process, comply with the respective company's internal planning and prudence review procedures, complete a request for proposal ("RFP") process, select a vendor, procure equipment, schedule outages, install equipment, and then tune and test the equipment. By requiring completion of this process in 18 months, EPA places the facility operators in the untenable position of either short-cutting regular procedures or taking the unit offline until the process is complete, either of which results in increased costs and consequences to the municipal co-owners and cooperative members. Facility operators routinely require significantly more time to undertake projects of these types; which is further evidenced by the fact that EEAA has researched EPAissued FIPs throughout the United States and has not identified any other instance of a final rule requiring compliance within 18 months for a project of these types. The fact that EEAA and its member organizations were not allowed notice and opportunity to comment on the 18-month compliance deadline is grounds enough for requiring EPA to reconsider its determination in the Final Rule. 19 Further, given that the lack of notice and opportunity to comment on this requirement resulted in a clear error by EPA in the Final Rule that is accruing immediate and irreparable harms to EEAA's member organizations, EPA must grant reconsideration of this issue and provide for an administrative stay of this requirement during the reconsideration period (see paragraph III.B., below).

D. EPA Failed to Consider Available Information Regarding Control Costs and Remaining Useful Life

1. Failure to Evaluate Compliance Costs is Clear Error

The Clean Air Act requires consideration of "the costs of compliance" when evaluating both BART and Reasonable Progress requirements. EPA received comments from Entergy that EPA's cost evaluations failed to consider significant vendor costs and provided updated cost information to that effect.²⁰ EPA did not substantively disagree with Entergy's comments regarding whether inclusion of such costs is appropriate, but instead declined to consider the information provided by Entergy because it did not provide sufficient documentation of the underlying data.²¹ Thus, EPA had knowledge that more accurate cost information was available, but declined to verify and consider such information despite the clear Congressional intent that the

¹⁹ It appears that EPA's ad-hoc determination to require compliance for both BART and Reasonable Progress controls within 18 months may be responsive to the Opinion and Order by the Fifth Circuit (Docket No. 16-60118), issued after publication of the Proposed Rule for Arkansas, which grants judicial stay of the Texas FIP based on the likelihood of success in establishing that EPA exceeded its statutory authority by imposing emissions controls that go into effect years after the period of time covered by the current implementation plan. The original compliance deadlines in the Proposed Rule for Arkansas would have been subject to the same arguments, and therefore EPA shortened the compliance timeframe for these controls to fall just before the end of the first planning period. This arbitrary compliance determination fails to properly consider the statutory factors for BART and Reasonable Progress determinations, and further demonstrates that EPA must reconsider this issue.

²⁰ See 81 Fed. Reg. 66332, 66383 (Sept. 27, 2016).

²¹ *Id*.

costs of compliance must be evaluated. Entergy, EEAA and other commenters were not aware that EPA had declined consideration of the available information until issuance of the Final Rule. EEAA understands that Entergy has now provided EPA with the underlying sensitive and confidential data within the time for judicial review.²² This underlying data is of central relevance to EPA's determinations in the Final Rule. Therefore, reconsideration of the Final Rule's control costs determination is appropriate and necessary to correct EPA's error in failing to consider the costs of compliance as required by statute.

2. Failure to Evaluate Remaining Useful Life of the Source is Clear Error

In addition to the statutory requirement to consider costs of compliance, EPA is also required to consider the remaining useful life of the source in making both BART and Reasonable Progress determinations.²³ As with the aforementioned information concerning control costs, EPA received comments from Entergy which included a proposal regarding a significantly shorter remaining useful life for the White Bluff plant. Again however, instead of evaluating this information as statutorily required, EPA declined to consider the information because it mischaracterized Entergy's proposal as failing to affirmatively state that Entergy would accept a binding requirement to limit the remaining useful life of the source. In the first instance, this justification baldly ignores Entergy's clear comment that it was "prepared to take an enforceable commitment to that effect," which in and of itself is a clear error demanding reconsideration of the Final Rule. More importantly, Entergy, EEAA and other commenters were unaware that EPA was declining to consider relevant and available information until issuance of the Final Rule.

Proper consideration of remaining useful life is critical because, as EPA acknowledged in the Final FIP, "a shorter remaining useful life [at White Bluff Units 1 and 2] might result in a conclusion that dry scrubbers are not cost-effective...." Because EPA failed to take into account Entergy's proposed binding commitment to cease combusting coal at White Bluff in the EPA's cost-effectiveness analysis, which is centrally relevant to its BART determinations, EPA must reconsider this issue.

The error and injustice resulting from EPA's failures to properly consider costs of compliance and remaining useful life are further compounded by the aforementioned objections that EPA failed to consider current visibility data and that any air quality improvements on which EPA's determinations are based cannot and will not occur within the first planning period. Therefore, as part of its reconsideration, EPA should holistically consider the true cost and benefits of the determinations in the Final Rule, and avoid unnecessary costs and harms to EEAA's member organizations and other co-owners and stakeholders.

III. Request for Stav

A. Standard for Administrative Stay

²² See Petition for Reconsideration and Request for Stay at 7.

²³ 42 U.S.C. § 7491(g).

²⁴ Entergy Comments at 5.

²⁵ 81 Fed. Reg. at 66356.

The Clean Air Act authorizes EPA to stay the effectiveness of a rule for up to three months during reconsideration.²⁶ Additionally, the Administrative Procedure Act ("APA") further authorizes EPA to stay the effectiveness of a rule indefinitely pending judicial review when "justice so requires."²⁷ An administrative stay of the Final Rule's BART requirements for Flint Creek and White Bluff, and the Reasonable Progress requirements for Independence, is clearly appropriate during EPA's reconsideration of the above objections and those of other Petitioners and during the pendency of the Eighth Circuit's judicial review; particularly given the fundamental flaws in EPA's cost-benefit analysis owing to the fact that the visibility improvements upon which EPA justifies the entirety of the Final Rule have already taken place in the absence of the Final Rule's requirements [and thus in no sense can the Reasonable Progress controls be necessary and further requiring EPA to reconsider its BART determination for White Bluff.]. Stay of the Final Rule pending reconsideration and judicial review will avoid further accrual of significant harms to SWEPCO, Entergy, and the municipal and cooperative co-owners, and will have no negative impact to the visibility benefits determined in the Final Rule since those benefits have already been achieved.

B. Justice Requires Administrative Stay to Prevent Further Additional Harms to EEAA's Member Organizations and Other Facility Co-Owners

Although not lawfully required for EPA to provide an administrative stay of the Final Rule under the Clean Air Act or APA, the significant immediate and irreparable harms that will continue to accrue to EEAA's member organizations during the pendency of judicial review unquestionably demonstrate that administrative stay of the Final Rule is necessary and appropriate. requirement to install Low-NOx Burner-Over Fire Air ("LNB/OFA") controls at Flint Creek within 18 months has already required SWEPCO to enter a vendor contract for which it will incur substantial fees, if cancelled. These cancellation fees escalate based on purchasing, engineering and construction milestones and could be significant. Based on the merits of the objections raised in this Petition, there is a good probability that cancellation fees will be incurred and result in irrevocable harm to both SWEPCO and AECC. Similarly, the 18-month compliance deadline for installation of NOx controls at White Bluff and Independence forces Entergy to take immediate action to either (1) unnecessarily increase current costs and risk through rushed work and noncompliance with company prudence procedures, with no guarantee of FIP compliance once the work is completed, or (2) taking more time than the Final FIP permits, resulting in (a) cessation of operation of the White Bluff and Independence units until LNB/OFA can be installed and tuned and the associated additional replacement power costs for the units' owners and customers and (b) potential reliability issues for the municipal and electric cooperative co-owners and/or the regional transmission organizations.

The FIP requirements to install and operate scrubbers on White Bluff and Independence within five years requires Entergy to proceed immediately towards the two paths available absent a stay: (1) install dry FGD at a cost of approximately \$2,000,000,000, or (2) shut down the units and incur similar replacement power costs. With respect to either option, EEAA's member organizations who are municipal or electric cooperative co-owners will suffer immediate and

²⁶ See 42 U.S.C. § 7607(d)(7)(B).

²⁷ 5 U.S.C. § 705. EPA has applied this standard to CAA actions. *See, e.g.*, Prevention of Significant Deterioration ("PSD") and Nonattainment New Source Review ("NSR"): Aggregation, 75 Fed. Reg. 27643 (May 18, 2010).

irrevocable harm. If Energy is required to comply with the Final Rule by selecting to cease operation, that selection ultimately would cause extremely detrimental impacts to EEAA's member organizations and the communities they serve. By way of example, EEAA member Jonesboro CWL estimates that replacement of its share of ownership of the generation capacity of the White Bluff and Independence units in 2021 would result in increased costs in the first year alone between \$16.3 million and \$25 million, based on the prevailing price of natural gas at that time and the type of generation capacity which may be selected to meet its replacement needs. These increased costs would approximately represent a seventeen to twenty-seven percent increase in current customer rates escalated to 2021 dollars.

Additionally, for many of the municipal co-owners who have limited resources, five years would not be sufficient time to replace the necessary energy and capacity should deactivation be necessary. Whether the municipal and cooperative co-owners would replace the capacity with new ownership or purchased power, they would need to begin taking steps and incurring costs immediately related to administrative expenses, engineering and consulting analyses, rate analysis, and RFP preparation and evaluation; and the compliance deadline will severely impede their ability to obtain competitive pricing.

These harms and others can be avoided, however, through an administrative stay of the Final Rule during reconsideration and judicial review, and without adverse impact to the visibility benefits determined in the Final Rule. As noted above, newly available IMPROVE data shows that visibility continues to improve by an amount greater than the URP in Arkansas' Class I areas, and that visibility is already better than EPA's goals for those areas determined in the Final Rule. Accordingly, no significant negative impacts to visibility values will occur as a result of the requested stay.

III. CONCLUSION

For the reasons discussed above, EEAA urges EPA to reconsider and stay the aforementioned provisions of the Final Rule. Because of the significant and increasing harms to EEAA's member organizations, EEAA is simultaneously filing a Petition for Review of this matter in the United States Court of Appeals for the Eighth Circuit. As such, EEAA respectfully requests that EPA act immediately in deciding whether to grant reconsideration and the stay.

Dated: November 28, 2016

Chad L. Wood PPGMR Law, PLLC

101 Morgan Keegan Dr., Suite A

Chael Want

Little Rock, AR 72202 (501) 603-9000

chad@ppgmrlaw.com

<u>Counsel for Energy and Environmental Alliance of</u> <u>Arkansas</u>



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6 1445 ROSS AVENUE, SUITE 1200 DALLAS, TX 75202-2733

OCT 1 3 2016

Mr. Stuart Spencer Associate Director, Office of Air Quality Arkansas Department of Environmental Quality 5301 Northshore Drive North Little Rock, AR 72118-5317

Dear Mr. Spencer:

I am writing today to provide our preliminary views on supplemental comments received from Entergy regarding a proposed alternative strategy for their White Bluff facility. These comments were received on August 8, 2016, well outside the comment period, and therefore could not be considered in our final Federal Implementation Plan (FIP) action, for which we were under a court-ordered deadline of August 31, 2016 (Sierra Club v. Gina McCarthy, No. 4.14CV00643JLH (ED Ark. Western Div. Nov. 3, 2015)). We believe, however, that the alternative plan proposed by Entergy in their comments has potential merit with respect to addressing the best available retrofit technology (BART) requirements for White Bluff, and if the issues identified in the enclosure were to be addressed, could provide the basis for an approvable State Implementation Plan (SIP) revision. If Arkansas believes that Entergy's alternative plan is a more appropriate course, we would be happy to continue to work with you on such a SIP revision that could replace the FIP requirements for the White Bluff units.

Please contact me at 214-665-7548, or Guy Donaldson, of my staff, at 214-665-7242, if you would like to discuss further.

Sincerely,

Mark Hansen

Associate Director for Air, Multimedia Division

Enclosure

cc: Kelly McQueen

Assistant General Counsel, Entergy

Enclosure:

Entergy's August 8, 2016 letter requests that the sulfur dioxide (SO₂) BART determination for the White Bluff units be either an emission limit of 0.06 lb/MMBtu on a 30 boiler-operating-day rolling average consistent with the installation of dry flue gas desulfurization (dry FGD), or as an alternative to the installation of these controls, a binding requirement to (1) cease coal fired operation at one unit by the end of 2025 and the other unit by the end of 2026 and (2) limit the operation of one unit to a capacity factor of no greater than 50 percent in 2025. In addition, Entergy requests a revised nitrogen oxide (NO_X) BART emission limit of 1,305 lb/hr for periods when the White Bluff units are operating at a low capacity factor. Based on the information provided in the August 8, 2016 comment letter, an approvable SIP revision that includes Entergy's requested BART determinations for White Bluff must also include certain additional information and documentation to fully support those BART determinations. The additional information and documentation that are needed are discussed in the paragraphs that follow.

Enforceable Mechanism

If Arkansas agrees that it would be appropriate to take the alternative approach for White Bluff, the SIP revision must include an enforceable mechanism which requires that Entergy (1) cease coal combustion at White Bluff by the end of 2025 at one unit and by the end of 2026 at the other unit, and (2) limit operation of one unit to a capacity factor of no greater than 50 percent in 2025.

Revised dry FGD Cost Analysis

As part of the BART analysis, a demonstration that dry FGD is no longer cost-effective in light of a shorter remaining useful life for the White Bluff units must be included in the SIP revision. Entergy's August 8, 2016 letter includes an updated BART analysis of the five statutory BART factors. In this analysis, Entergy relies on the cost analysis prepared in 2015 by Sargent & Lundy (2015 Sargent & Lundy cost analysis), and indicates that the cost effectiveness of dry FGD would range from \$10,400 to \$11,800/ton removed at each unit if coal combustion were to cease in 2025 and 2026. As discussed in our Arkansas FIP signed on August 31, 2016, the 2015 Sargent & Lundy cost analysis presents problems that prevented us from using it in our FIP, primarily because it is undocumented. For example, the 2015 Sargent & Lundy cost analysis uses a 2013 Alstom quote as its basis, but the 2013 Alstom quote is not provided in the 2015 Sargent & Lundy cost analysis. This omission prevents us from verifying the scope of work covered in that cost analysis. In addition, certain costs included in the 2015 Sargent & Lundy cost analysis were not documented. An approvable SIP revision that relies on the 2015 Sargent & Lundy cost analysis must include corrections of the issues we identified with that cost analysis, as discussed in our Arkansas FIP. Alternatively, the SIP revision could rely on our revised cost analysis for dry FGD, as presented in our Arkansas FIP, to calculate the cost effectiveness of dry FGD in light of the shorter remaining useful life.

Additionally, in the updated BART five factor analysis provided in Entergy's letter, the cost effectiveness of dry FGD controls was calculated based on an assumption that the annual emissions reductions achieved with dry FGD would be lower if the unit were restricted to operate at a capacity factor of no greater than 50 percent in 2025. Additional explanation of how the annual emissions reductions were calculated and the calculations themselves must be provided to properly support the assumed annual emissions reductions. The updated BART five factor analysis also includes a revision of

the direct variable and fixed operation and maintenance (O&M) costs to reflect operating at a capacity factor of no greater than 50 percent in 2025. The calculations of the revised direct variable and fixed O&M costs must be provided.

Evaluation of DSI as an Interim Control

As discussed in our Arkansas FIP, because section 51.308(e)(1) and the BART guidelines require that a subject-to-BART source install and operate the best available emission reduction technology based on the five statutory factors, it is necessary to consider whether there are any additional SO₂ control measures (beyond the interim SO₂ emission limit of 0.6 lb/MMBtu proposed by Entergy) that constitute BART during the interim period before coal combustion ceases at the White Bluff units. In particular, dry sorbent injection (DSI) has a relatively low capital cost and may be cost effective even if operated for a short period of time. An approvable SIP revision must include a full BART analysis that considers and evaluates DSI to determine if it constitutes BART during the interim period. This evaluation must include the following:

- Evaluation of the feasibility and capability of DSI at the White Bluff units, including the anticipated range of emissions reductions. This may include evaluation of the existing particulate matter (PM) control equipment and any need for potential additional PM control equipment to handle the additional PM load. The BART analysis must include documentation of the need for any additional PM control equipment needed to handle the additional PM load.
- Cost evaluation of DSI and any necessary additional PM control equipment (including supporting documentation) that takes into consideration the remaining useful life of the units.
- Evaluation of the potential visibility benefits of DSI controls.
- Evaluation of any energy and non-air quality environmental impacts of DSI controls.

Entergy's Refined NO_X BART Emission Limit

With regard to appropriate NO_X BART limits, Entergy's letter states that it "has refined its analysis of the proposed NO_X limitation," and determined that a NO_X emission limit of 1,305 lb/hr is achievable and appropriate as NO_X BART for the White Bluff units when they are operated at less than 50 percent of capacity. While we understand Entergy's concerns about not being able to meet an emission limit of 0.15 lb/MMBtu on a 30 boiler-operating-day rolling average when the units are operated at less than 50 percent of capacity, there is no information presented in Entergy's letter to demonstrate that an emission limit of 1,305 lb/hr is sufficiently protective or appropriate when the units are operated at low capacity. In particular, we discussed in our Arkansas FIP that the 1,342.5 lb/hr emission limit Entergy initially requested in the comments submitted during the comment period appeared to be based on the maximum heat input rating for each unit and therefore was not an appropriate emission limit for operation at low capacity. The revised emission limit Entergy requests in the August 8, 2016 letter is only slightly lower. Entergy provided no information demonstrating that this limit would be sufficiently protective or appropriate when the units are operated at low capacities considering that NO_X emissions on a mass basis are expected to be lower when the units are operated at low capacity compared to operation at high capacity. As the Regional Haze Rule requires the identification and evaluation of the highest level of control a particular control technology is capable of achieving (see 64 FR at 35740), additional information must be provided to document and demonstrate that 1,305 lb/hr is appropriate and sufficiently controls NOx emissions using LNB/SOFA when the units are operated at less than

50 percent of capacity. This additional information could consist of the refined analysis Entergy mentions in page 5 of the supplemental comments attached to the August 8, 2016 letter and/or a vendor guarantee.

Entergy's Updated NO_X Control Costs

Entergy's August 8, 2016 letter provides an updated calculation of the cost effectiveness of NO_X controls that takes into consideration a shortened remaining useful life for the White Bluff units. The updated calculation of the cost effectiveness of NO_X control costs appears to be based on the cost analysis included in Entergy's "Revised BART Five Factor Analysis for White Bluff Steam Electric Station Redfield, Arkansas (AFIN 35-00110)," dated October 2013. As discussed in our FIP proposal (see 80 FR at 18973), that cost analysis of NO_X controls included certain line items that were not documented by Entergy and do not appear to be valid costs under the Control Cost Manual methodology. The updated calculation of the cost effectiveness of NO_X controls must be based on a cost analysis that either properly documents these line items or eliminates them from the total annual cost estimate.

Additionally, Entergy's updated calculation of the cost effectiveness of NO_X controls assumes that the annual emissions reductions achieved would be lower if the unit is restricted to operate at a capacity factor of no greater than 50 percent in 2025. Additional explanation of how the annual emissions reductions were calculated and the calculations themselves must be provided to properly support the assumed annual emissions reductions. In the updated cost analysis, Entergy also revised the direct variable and fixed O&M costs of NO_X controls to reflect operating at a capacity factor of no greater than 50 percent in 2025. The calculation of the revised direct variable and fixed O&M costs must be provided.

CSAPR Better than BART

As discussed in our Arkansas FIP, we proposed and ultimately finalized source specific NO_X BART determinations for Arkansas' electric generating units (EGUs) instead of relying on the Cross State Air Pollution Rule (CSAPR) because at the time of our proposed action, this approach properly accounted for uncertainty in the CSAPR better-than-BART regulation created by ongoing litigation regarding the CSAPR program. This approach was also consistent with Arkansas' earlier decision to conduct sourcespecific NO_X BART determinations in lieu of relying on CSAPR's predecessor, the Clean Air Interstate Rule, to meet the BART requirements. In addition, after we proposed the Arkansas FIP, the D.C. Circuit issued a July 2015 decision in EME Homer City Generation v. EPA upholding CSAPR but remanding without vacatur a number of the Rule's state NO_X and SO₂ emissions budgets (795 F.3d 118 (D.C. Cir 2015)). Arkansas' ozone season NOx budget is not itself affected by the remand. However, the Court's remand of the affected states' emissions budgets has implications for CSAPR better-than BART, since the demonstration underlying that rulemaking relied on the emission budgets of all states subject to CSAPR, including those that the D.C. Circuit remanded, to establish that CSAPR provides for greater reasonable progress than BART. We are in the process of acting on the Court's July 2015 remand. On September 7, 2016, we finalized an update to the CSAPR ozone season program by issuing the CSAPR Update. This rule addresses the summertime (May - September) transport of ozone pollution in the eastern United States that crosses state lines to help downwind states and communities meet and maintain the 2008 ozone national ambient air quality standard (NAAOS), and also responds to the Court's remand of the Phase 2 ozone season NO_X budgets for 11 states. The CSAPR Update also

promulgates a FIP for Arkansas that establishes an EGU NO_X ozone season emission budget to reduce interstate transport for the 2008 ozone NAAQS. We are in the process of responding to the Court's remand of the Phase 2 SO₂ emission budgets for four states, consistent with the planned response we outlined in a June 2016 memorandum.¹ We expect that the uncertainty created by the D.C. Circuit's remand of the affected states' emission budgets will shortly be resolved. The CSAPR Update does not include determinations or establish any presumptions that compliance with that rule satisfies NO_X BART for EGUs. However, the Environmental Protection Agency's preliminary analysis indicates that CSAPR participation will remain an appropriate BART alternative for all states participating in CSAPR (either by FIP or SIP adoption). We intend to determine whether compliance with CSAPR will continue to be an appropriate BART alternative in another rulemaking soon that takes into account the changes to CSAPR following the July 2015 remand. If EPA finds that CSAPR continues to provide for greater reasonable progress than BART,² the State may submit a SIP revision that includes reliance on CSAPR to satisfy the NO_X BART requirements for Arkansas' EGUs instead of doing source-specific NO_X BART determinations.

Additional Information on Operation After Coal Combustion Ceases

Entergy's August 8, 2016 letter indicates that it anticipates ceasing coal combustion at White Bluff by the end of 2025 at one unit and 2026 at the other unit. A SIP revision that assumes a shorter remaining useful life for the units should include a discussion of the fuel types Entergy anticipates using after coal combustion ceases, including whether there will be a limit on the sulfur content of any fuel oil burned at the units.

¹ https://www3.epa.gov/airtransport/CSAPR/pdfs/CSAPR_SO2_Remand_Memo.pdf

² Alternatively, Arkansas could conduct an analysis that demonstrates compliance with the CSAPR Update for certain EGUs in Arkansas fulfills NO_X BART for those EGUs.